

What is claimed is:

1. A method for controlling a snow-trail grooming vehicle, especially for distributing the driving power which is made available by a drive motor of a snow-trail grooming vehicle onto a chain or track drive thereon and further consumers, wherein the distribution of the driving power occurs by control of a central processing system, whereby by means of the central processing system a varying distribution of the driving power can be adjusted in dependency of a specifiable changeable prioritizing of the drive of at least one consumer and/or of groups of consumers.

2. The method according to Claim 1, wherein selectively a prioritizing of the drive, at least of one snow-trail grooming device and/or of a cable winch, can be adjusted.

3. The method according to Claim 1, wherein during the prioritizing of individual consumers or of the chain or track drive threshold values are specified for the power available for the further consumers and/or the drive.

4. The method according to Claim 1, wherein the threshold values are specified for output parameters of the chain or track drive, like driving speed, and/or output parameters of the further consumers, like shaving speed.

5. The method according to Claim 1, wherein in dependency of environmental parameters, like slope incline, cable-winch operation, snow thickness, snow temperature and/or snow height, a change of the

prioritizing is suggested by the processing system to an operator or is automatically carried out.

6. The method according to Claim 1, wherein by controlling the central processing system a correlation of the adjustment of the drive motor, of a hydraulic pump driven by the drive motor, and of a hydrostatic gear of the chain or track drive is carried out in order to obtain the desired distribution of the driving power with little power loss.

7. The method according to Claim 1, wherein by controlling the central processing system a braking power created by means of a hydraulic brake or a hydraulic pump coupled with the gear drive is distributed onto the several consumers.

8. The method for controlling a snow-trail grooming vehicle comprising a central processing system, in particular according to Claim 1, wherein traveling programs, which can be specified by means of the central processing system, can be correlated on the basis of which the central processing system suggests to an operator or automatically carries out an adjustment of a drive motor, of a chain or track drive, and/or of further consumers, like a snow-trail grooming device or a cable winch.

9. The method according to Claim 8, wherein the correlation of the drive motor, of the chain or track drive, and/or of further consumers within a traveling program occurs in dependency of environmental parameters, like the position of the snow-trail grooming vehicle, the height of the snow and the thickness of the snow, the slope incline and the like.

10. The method for controlling a snow-trail grooming vehicle, especially for determining the thickness of the snow, in particular according to Claim 1, wherein the thickness of the snow is determined by means of a resistance measurement of the snow in the area of the snow-trail grooming vehicle and a subsequent processing of the measured values in a central processing system.

11. The method according to Claim 10, wherein a resistance measurement is accomplished by means of at least two electrodes which are in contact with the snow in the area of the snow-trail grooming vehicle and move along with the snow-trail grooming vehicle.

12. The method for controlling a snow-trail grooming vehicle, in particular according to Claim 1, wherein a measurement of the true traveling speed above ground occurs by means of a navigational system and a measurement of a chain speed, and that in a central processing system there occurs a processing of the true traveling speed and of the chain speed in order to determine slip.

13. The method according to Claim 12, wherein the central processing system checks and, if necessary, changes in dependency of the determined slip a chain tension, a chain speed, and/or adjustments of snow-trail grooming devices, and/or a cable winch.

14. The method according to Claim 12, wherein a measuring of the true traveling speed occurs by means of a satellite navigational system, a terrestrial navigation system, and/or an inertial navigation system, and a

processing of the collected data in the central processing system.

15. In a snow-trail grooming vehicle, comprising a drive motor, a chain or track drive, and further consumers and means for distributing a driving power onto the drive and/or the further consumers, the improvement wherein a central processing system is provided for controlling the means for distributing the driving power, which has devices for specifying a changeable prioritizing of the driving power or of the further consumers during the distribution of the driving power.

16. The snow-trail grooming vehicle according to Claim 15, wherein the central processing system has devices for specifying threshold values for the driving power made available to the drive or further consumers, and/or threshold values for output parameters of the drive and/or of the further consumers.

17. The snow-trail grooming vehicle according to Claim 15, wherein means for determining environmental parameters, like the slope incline, cable-winch operation, thickness of the snow, temperature of the snow, and/or height of the snow, are provided.

18. The snow-trail grooming vehicle according to Claim 15, comprising a controllable hydraulic pump driven by the drive motor, and at least one controllable hydrostatic gear for the drive, wherein the central processing system has devices for adaptation of the correlation of the drive motor, of the hydraulic pump, and of the at least one hydrostatic gear of the drive with regard to little loss.

19. The snow-trail grooming vehicle according to Claim 15, comprising at least one hydraulic brake or a hydraulic pump coupled with the gear drive, wherein the central processing system has devices for distributing a braking power, which is produced by the at least one hydraulic brake or by the hydraulic pump, onto the several consumers.

20. The snow-trail grooming vehicle, in particular, according to Claim 15, comprising a central processing system, wherein for measuring the thickness of the snow with at least two electrodes arranged in the form of a rake for the resistance measurement.